



hSu(fu) 1 MAELRPSGAPGTAPPAPGPTAPPAFASLFPFGLHAIYGECCRLYPDQPNPLQVTAIVKY
dSu(fu) 1MAEANLDKKPEVKP..PPGLKAIIDHLGQVYPNQPNPLQVTTLLKY

hSu(fu) 61 WLGGPDPPLDYVSMYRNVGSPSANIPEHWHYISFGLSDLYGDNRVHEFTGTDGPPSGFGFEL
dSu(fu) 45 WLGQQDPLDYISMYKFPDVRNVPPHWHYISFGLSDLHGDERVHLREEGVTRSGMGFEL

hSu(fu) 121 LKR...ETGESA..PPTWPAELMQGLARYVFQSENTFCSGDHVSWHSPLD.
dSu(fu) 105 LAKTEIELKQQIENPEKQORAPTWPANLQAIGRYCFQTGNGLCFGDNIPWARKSLDYG

hSu(fu) 169 NSESRIQHMLLTEDPQMOPVQTFGVVTFLLQIVGVCTEELHSAQQWNGQGILLELRTVPI
dSu(fu) 165 STTSKLNLLVAQDPQLGCIPTGTVDFFCQIVGVFDDELEQASRWNGRGVLLNFLRQDMQ

hSu(fu) 229 AGGPWLITDMRRIGETIFEIDPHLQERVDKGIEIDTGSNLSGVSAKCAWDDL SRPPEDEDS
dSu(fu) 225 TGGDWLVTNMDRQMSVFELFPEPETLLNLQDDLEKQGSDDL AGVNA DFSFRELKPTKEVKEE.

hSu(fu) 289 RSICIGTQPRRLSGKDT[EQIR]ETLRRGLEINSK[PVL]PPINPQRQNG[LAH]DRA[P]SRKDSLE
dSu(fu) 284 ...VDFQALSEKCANDENNRQLTDTQMK-REEPSFPQSMSSMSSN[SL]-HKSCPL...DFQ

hSu(fu) 349 SDSSTAIIIPHELIRTRQ[LESVHLKFNQESGALIP]CLRG[RL]HGRHF[SITGDM]A[ITF]
dSu(fu) 335 AQAPNCI.....SLDGEITLAPGVAKYLL[LA]IKDRIRHGRHF...AQHLA[LT]L

hSu(fu) 409 VSTGV[EG]AFA[TEEHP]YAAHGPWLQL
dSu(fu) 384 VAESVTGSAVTVNEPYGVLYWIQVLI PDELVPRLMEDFCAGLDEKCEPKERLELEWPD

hSu(fu) 444 KNLKLIIDQPEPVLPMSLDAAPLKM

FIG..1

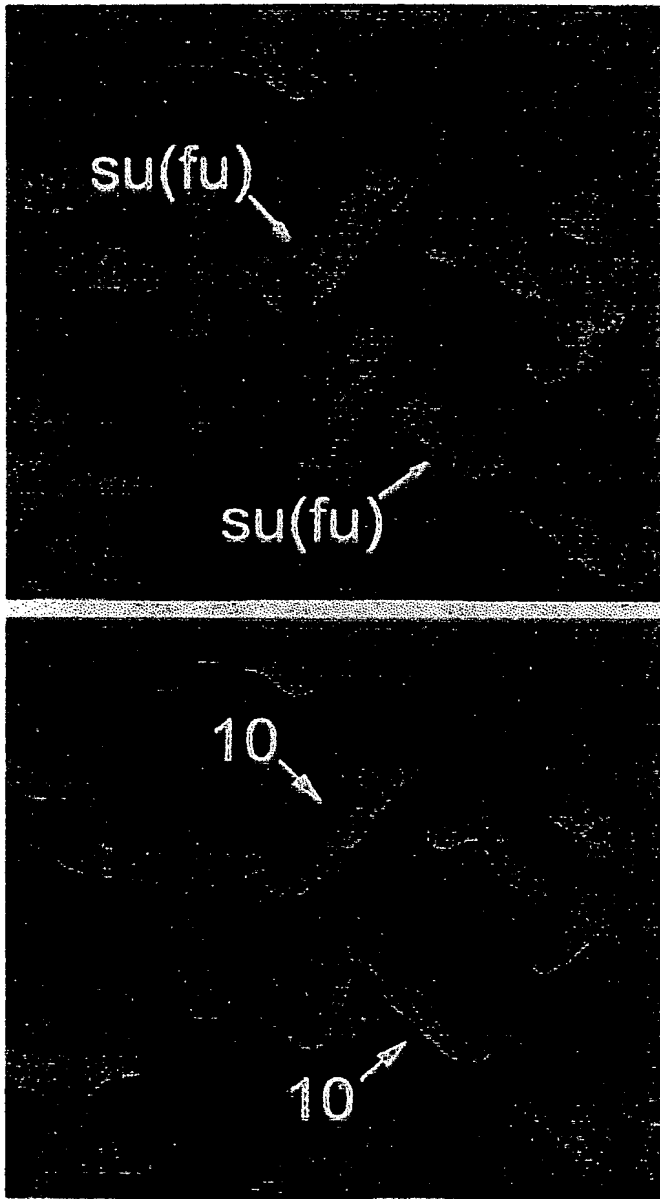


FIG._2A

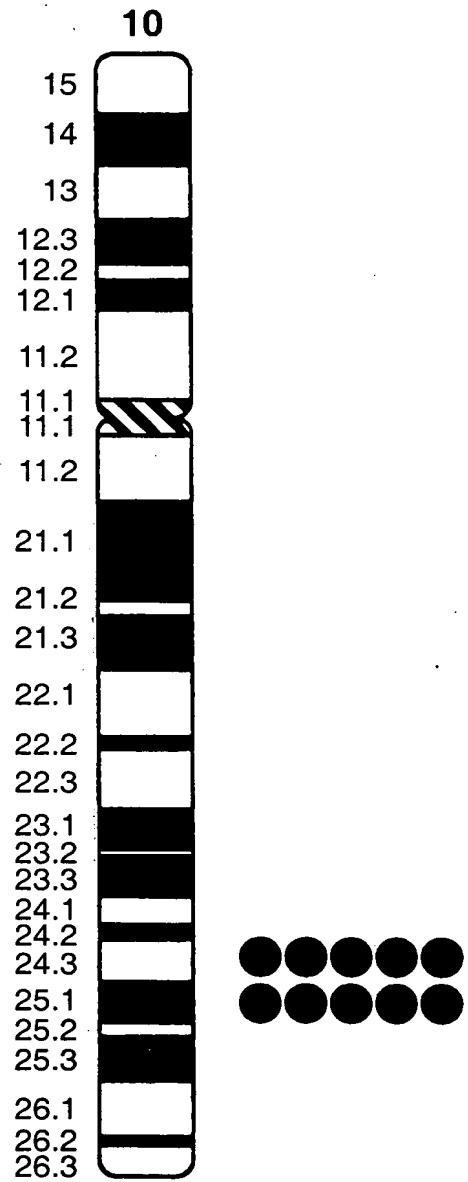


FIG._2B

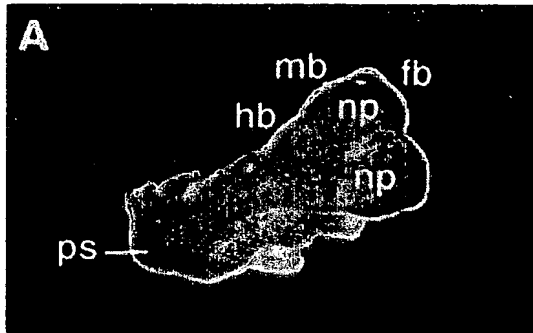


FIG._3A

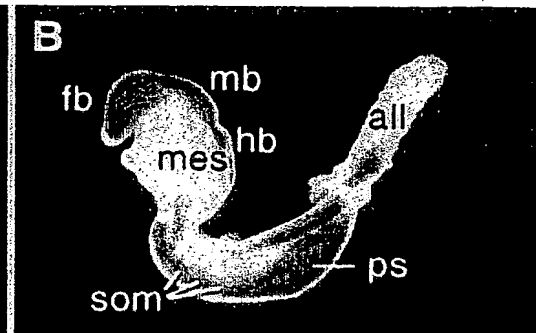


FIG._3B

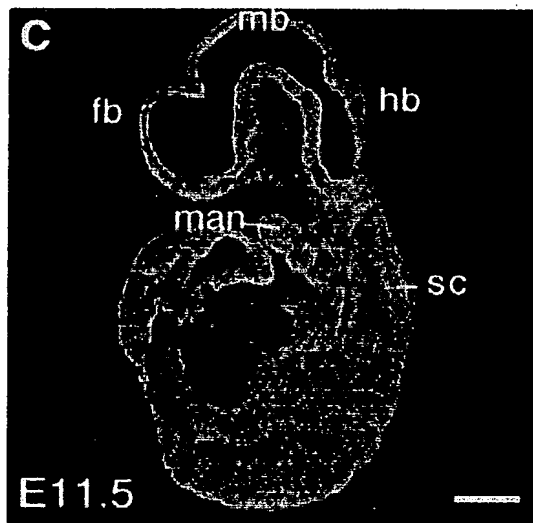


FIG._3C

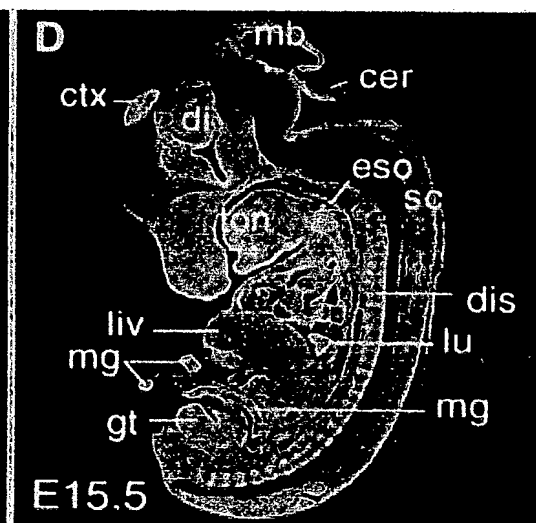


FIG._3D

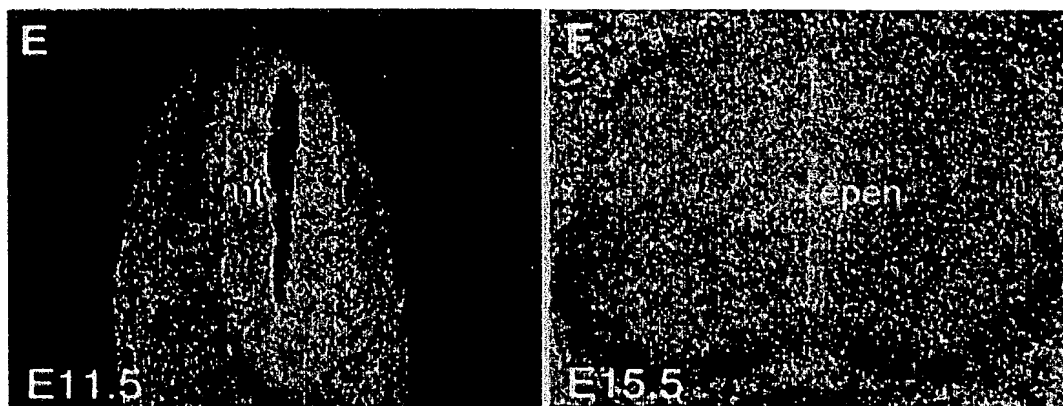


FIG._3E

FIG._3F

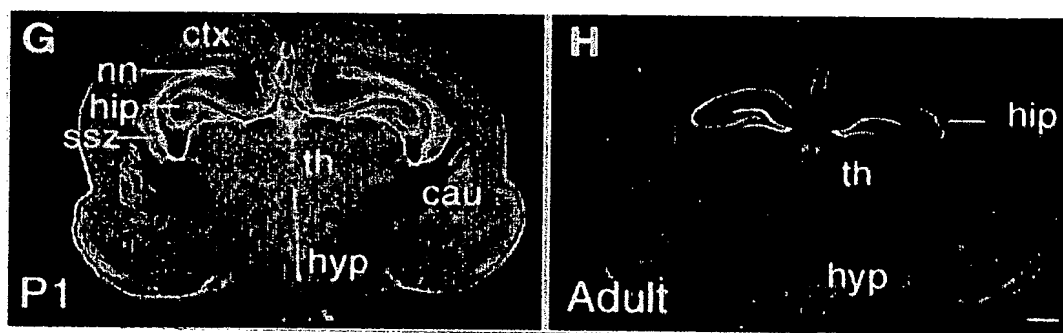


FIG._3G

FIG._3H

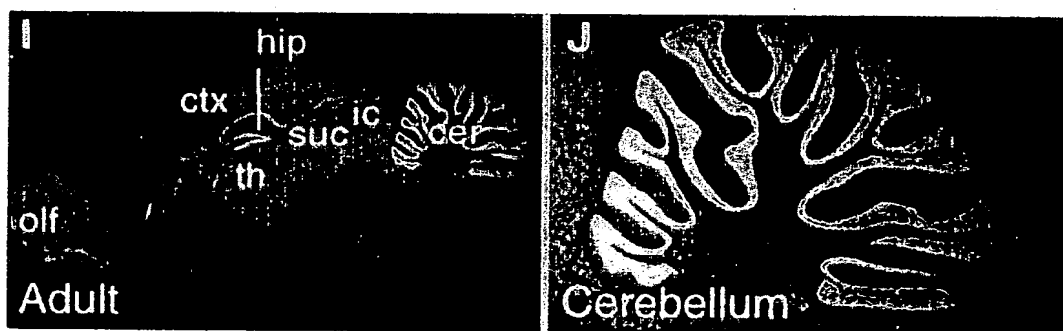


FIG._3I

FIG._3J



FIG._4A



FIG._4B

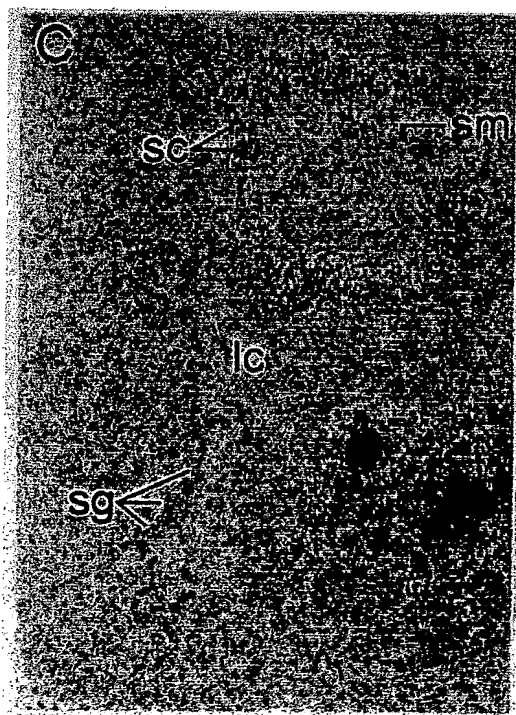


FIG._4C

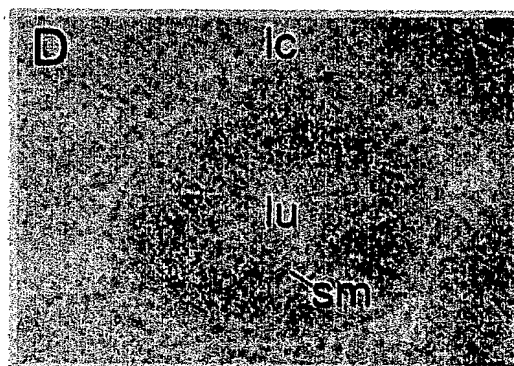


FIG._4D

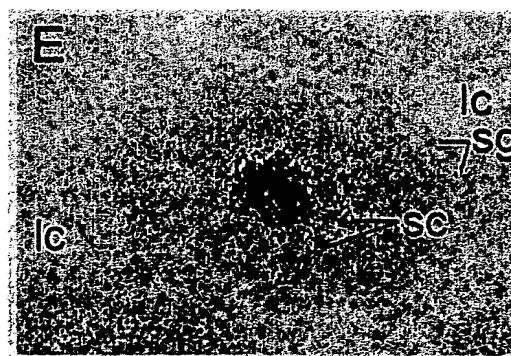


FIG._4E

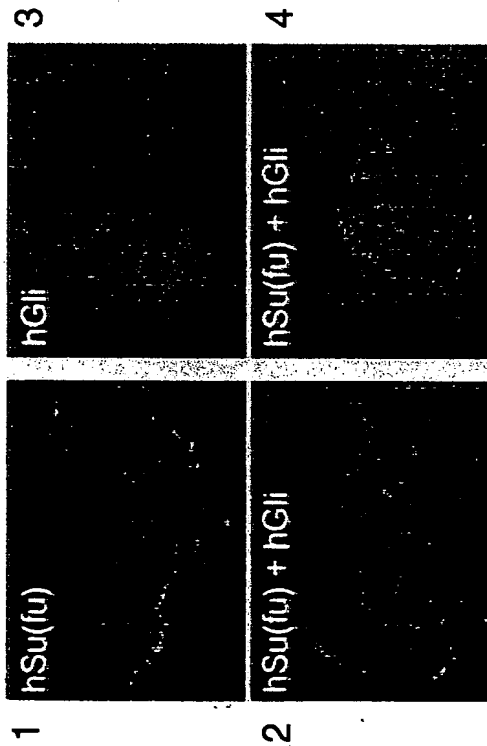
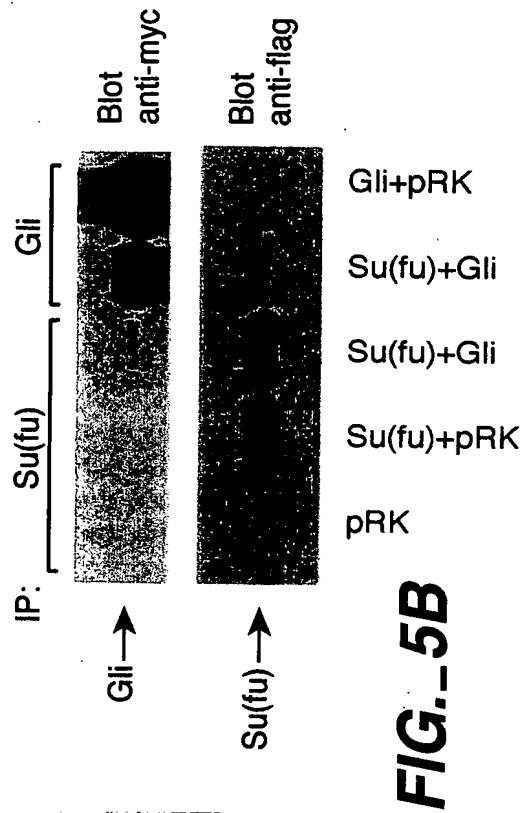


FIG. 5A

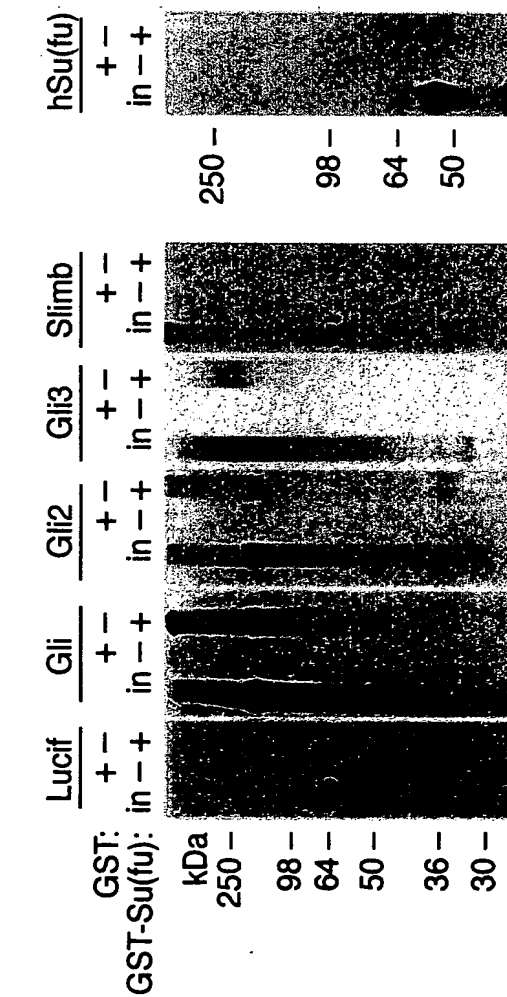


FIG. 5C

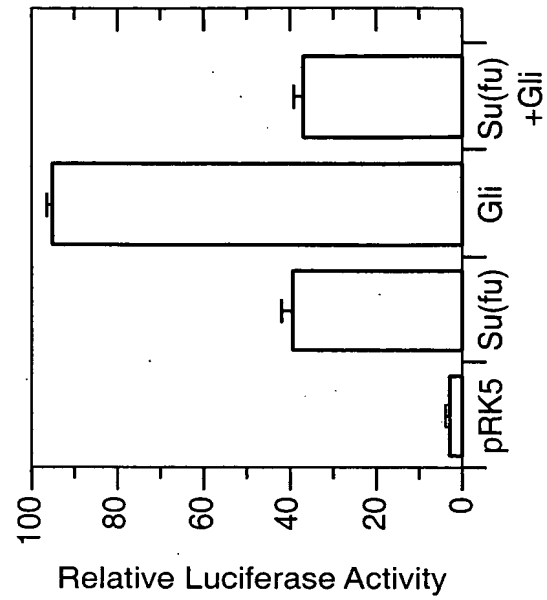


FIG. 5D

1 CCCGCTGGCC CGTCAGTGCT CTCCCGCTCG TTTGCCCTCT CCAGTTCCCC CAGTGCCTGC CCTAGGCACC CGATGGCGG AGCTGGCGC TAGCGGCGCC
GGGCGACCGG GCAGTCACGA GAGGGGCAGC AAACGGGAGA GGTCAAGGG GTCACGGACG GGATGCGTGG GGCTACCGCC TCGACGCGG ATCGCCGCGG
M A E L R P S G A

^orf
^MET

101 CCCGCCCCCA CCGCGCCCCC GGGCCCTGGC CCGACTGCCC CCGCGGCTT CGCTTCGCTC TTTCCTCCCG GACTGCACGC CATCTACGA GAGTGCAGC
GGGCGGGGT GCGCGGGGG CCGGGGACCG GGCTGACGG GGGGCGGAA CGGAAGCGAG AAAGGGGCC CTGACGTGCG GTAGATGCT CTCACGGCGG
10 P G P T A P P A P G P T A P P A F A S L F P P G L H A I Y G E C R R
201 GCCTTTACCC TGACCAGCG AACCCGCTCC AGGTTACCGC TATCGTCAAG TACTGGTGG GTGGCCCGA CCCCTTGGAC TATGTTAGCA TGTACAGAA
CGGAAATGG ACTGGTCGGC TTGGGCGAGG TCCAATGGC ATAGCAGTTC ATGACCAACC CACCGGTCT GGGGAACCTG ATACAATCGT ACATGTCCTT
44 L Y P D Q P N P L Q V T A I V K Y W L G G P D P L D Y V S M Y R N
301 TGTGGGGAGC CTTCTGCTA ACATCCCCGA GCACTGGCAC TACATCAGCT TCGGCCCTGAG TGATCTCTAT GGTGACAACA GAGTCCATGA GTTACAGGA
ACACCCCTCG GGAAGACGAT TGTAGGGGCT CGTGACCGTG ATGTAGTCGA AGCCGGACTC ACTAGAGATA CCACCTGTGT CTCAGGTACT CAAATGTCCT
77 V G S P S A N I P E H W H Y I S F G L S D L Y G D N R V H E F T G
401 ACAGATGGAC CTAGTGGTTT TGGCTTTGAG TTGACCTTTC GTCTGAAGAG AGAACTGGG GAGTCTGCCC CACCAACATG GCGCGCAGAG TTAATGCAGG
TGCTACCTG GATCACCAAA ACCGAACTC AACTGGAAAG CAGACTTCTC TCTTTGACCC CTCAGACGGG GTGGTTGTAC CGGGCGTCTC AATTACGTCC
110 T D G P S G F G F E L T F R L K R E T G E S A P P T W P A E L M Q G
501 GCTTGGCAGC ATACGTGTC CAGTCAGAGA ACACCTTCTG CAGTGGGGAC CATGTGTCCT GGCACAGCCC TTTGGATAAC AGTGAGTCAA GAATTCAGCA
CGAACCGTGC TATGCACAAG GTCAGTCTCT TGTGGAAGAC GTCACCCCTG GTACACAGGA CCGTGTGCGG AAACCTATTG TCACTCAGTT CTTAAGTCTGT
144 L A R Y V F Q S E N T F C S G D H V S W H S P L D N S E S R I Q H
601 CATGCTGCTG ACAGAGGACC CACAGATGCA GCGCGTGCAG ACACCTTTG GGGTAGTTAC CTTCTCTCCAG ATCGTTGGTG TCTGCACTGA AGAGCTACAC
GTACGACGAC TGCTCTCTCG GTGCTACGT CCGGCACGTC TGTGGAAAC CCCATCAATG GAAGGAGTC TAGCAACCAC AGACGTGACT TCTCGATGTG
177 M L L T E D P Q M Q P V Q T P F G V V T F L Q I V G V C T E E L H
701 TCAGCCCAGC AGTGAACCG GCAGGGCATC CTGGAGCTGC TCGGACAGT GCCTATTGCT GCGGGCCCCC GGCTGATAAC TGACATGCGG AGGGGAGAGA
AGTCGGGTG TCACCTTGCC CGTCCCGTAG GACCTCGACG ACGCTGTCA CGGATAACGA CCGCGGGGA CCGACTATTG ACTGTACGCC TCCCCTCTCT
210 S A Q Q W N G Q G I L E L L R T V P I A G G P W L I T D M R R G E T

FIG._6A

801 CCAATATTGA GATCGATCCA CACCTGCAAG AGAGAGTTGA CAAAGGCATC GAGACAGATG GCTCCAACCT GAGTGGTGT AGTGCCAAGT GTGCCTGGGA
GGTATAAACT CTAGCTAGGT GTGGACGTTT TCTCTCAACT GTTTCGGTAG CTCTGTCTAC CGAGGTTGGA CTCACCCACAG TCACGGTTCA CACGGACCOCT
244 I F E I D P H L Q E R V D K G I E T D G S N L S G V S A K C A W D
901 TGACCTGAGC CGGCCCCCG AGGATGACGA GGACAGCCGG AGCATCTGCA TCGGCACACA GCCCCGGCGA CTCTCTGGCA AAGACACAGA GCAGATCCGG
ACTGGAAGTC GCGGGGGGGC TCCTACTGCT CCTGTGCGGC TCGTAGACGT AGCCGTGTGT CCGGGGGCGCT GAGAGACCGT TTCTGTGTCT CGTCTAGGCC
277 D L S R P P E D D E D S R S I C I G T Q P R R L S G K D T E Q I R
1001 GAGACCCCTGA GGAGAGGACT CGAGATCAAC AGCAAACTG TCCTTCCACC AATCAACCCCT CAGCGGCAGA ATGGCCCTCG CCACGACCGG GCCCCGAGCC
CTCTGGGACT CCTCTCCTGA GCTCTAGTTG TCGTTTGGAC AGGAAGGTGG TTAGTTGGGA GTCGCCGTCT TACCGGAGCG GGTGCTGGCC CCGGGCTCGG
310 E T L R R G L E I N S K P V L P P I N P Q R Q N G L A H D R A P S R
1101 GCAAGACAG CCTGGAAAGT GACAGCTCCA CGGCCATCAT TCCCCATGAG CTGATTTCGA CCGCGCAGCT TGAGAGCGTA CATCTGAAAT TCAACCAGGA
CGTTTCTGTC GGACCTTTCA CTGTCGAGGT GCGGTAGTA AGGGTACTC GACTAAGCGT GCGCGCTCGA ACTCTGCGAT GTAGACTTTA AGTTGGTCCCT
344 K D S L E S D S S T A I I P H E L I R T R Q L E S V H L K F N Q E
1201 GTCCGGAGCC CTCATTCTC TCTGCCCTAAG GCGCAGGCTC CTGCATGGAC GGCACCTTAC ATATAAAAGT ATCACAGGTG ACATGGCCAT CACGTTTGT
CAGGCCTCGG GAGTAAGGAG AGACGGATTC CCCGTCCGAG GACGTACCTG CCGTGAAATG TATATTTTCA TAGTGTCAC TGTACCGGTA GTGCAAAACAG
377 S G A L I P L C L R G R L L H G R H F T Y K S I T G D M A I T F V
1301 TCCACGGGAG TGAAGGCG CTTTGCCACT GAGGAGCATC CTTACGCGGC TCATGGACCC TGTTTACAAC TCTGAACCTA TCCTCGGAGC TCTGCCCTCC
AGGTGCCCTC ACCTTCCGG GAAACGGTGA CTCCTCGTAG GAATGCGCG AGTACCTGG ACCAATGTTG AGACTTGGAT AGGAGCCTCG AGACGGGAGG
410 S T G V E G A F A T E E H P Y A A H G P W L Q L O
1401 CGTCTGGAA CGTCTTTCTG CCTGAGGAG AGGTAGTCA GCATCTCCAA TTTTCAGCAG CTCAGAAGCC TTGGCCCCCA CAGGACTTCG CAGATGTCAC
GCAGGACCTT GCAGAAAGAC GGGACTCCTC TCCCATCAGT CGTAGAGGT AAAAGTCGTC GAGTTCTGG AACCGGGGT GTCTGAAGC GTCTACAGTG
1501 ATTGCCCCC AGTCCCCTGA ATGCCCTTCG GACCCAAACC CAATTCCCCA AGCCCCCTGAC CCCCTAGCTG CCGGGGTTC CACTCCCAGT GCCACAACCC
TAACGGGGAG TCAGGGGACT TACGGGAAGC CTGGGTGGG GTTAAGGGGT TCGGGGACTG GGGATCGAC GGCCCCAAGG GTGAGGGTCA CCGTGTGGG
1601 CCTCACCTCC CCTGGCAGCC CCTCAGGAG CCTGAGGCC AGCACCCGCT GGCTCCCCAG CACATGGTCC CCTCCCATGG GCTGTGCCC AGGGAACCGG
GGAGTGGAG GGACCGTCGG GGAGTCGCTC GGACTCCGG TCGTGGGCGA CCGAGGGGTC GTGTACCAGG GGAGGGTACC CGACAACGGG TCCCTTGGCC
1701 GGCGGGTGG GAACGAGCTG CTGGCCTCGG CATGTTTCAA TAAAGTTGCT GTGCTGGGAG
CCGCGCCACC CTTGCTCGAC GACCGGAGCC GTACAAAGTT ATTTCAACGA CACGACCTC

FIG. 6B

1 GGACTGCXTG CCATAGCGGT TTCCCGGXTG CCACCGGXC CCCGGCCCAT GCXYXACTG CCCCXGXCC TTAXCATCTX TCTTTCCAX GGGACTGCAC
CCTGACGXAC GGTATCGCCA AAGGGCXAG GGTGGCXG GGGCCGGTA CGGXTGACG GGGXGXCGG AATXGTAGAX AGAAAGGTX CCCTGACGTG

101 GCCATCTACG GAGAGTCCG CCGXTTTAX CCTTACCAGC CGAACCCGCT CCAGTTTACC GCTATCGTCA AGTACTGGTT GGGTGGCCCA GACCCCTTGG
CGGTAGATGC CTCTCAGGC GCGXAAATX GGAATGGTCG GCTTGGCGA GTTCCAATGG CGATAGCAGT TCATGACCAA CCCACCGGGT CTGGGGAACC
^msupf.f

201 ACTATGTTAG CATGTACAGG AATGTGGGA GCCCTTCTGC TAACATCCC GAGCACTGGC ACTACATCAG CTTCGGCCTG AGTGATCTCT ATGGTGACAA
TGATACAATC GTACATGTCC TTACACCCCT CGGGAAGACG ATTGTAGGG CTCTGACCG TGATGTAGTC GAAGCCGGAC TCACCTAGAGA TACCACTGTT
^msupf.p

301 CAGAGTCCAT GAAGTTTACA GGAACAGATG GACCTAGTGG TTTTGT
GTCTCAGGTA CTTCAAATGT CCTTGTCTAC CTGGATCACC AAAACA
^msupf.r



10 / 10

1 GAGAGTGTCTG CCGCCTCTAC CCTGACCAGC CGAACCCGCT CCAGGTTACC CTATCGTCA
61 AGTACTGGTT GGGTGGTCCG GACCCCTTGG ACTATGTTAG CATGTACAGG ACATGGGGA
121 GTCCTTCTGC CAACATCCCT GAGCACTGGC ACTACATCAG CTTTGGCCTG GTGATCTCT
181 ATGGTGACAA CAGAGTCCAT GAGTTTACAG GAACAGACGG ACCAAGTGGA TTGGCTTTG
241 AGTTGACGTT TCGTCTGAAG AGAGAAACTG GGGAG

FIG._8

1 GGACTGCNTG CCATAGCGGT TTCCCCGNTC CCACCGCGNC CCCGGCCCAT GCCNNACTGC
61 CCCCNCGNCC TTANCATCTN TCTTTCCCAN GGGACTGCAC GCCATCTACG GAGAGTGCCG
121 CCGCNTTTAN CCTTACCAGC CGAACCCGCT CCAGGTTACC GCTATCGTCA AGTACTGGTT
181 GGGTGGCCCA GACCCCTTGG ACTATGTTAG CATGTACAGG AATGTGGGGA GCCCTTCTGC
241 TAACATCCCC GAGCACTGGC ACTACATCAG CTTGGCCTG AGTGATCTCT ATGGTGACAA
301 CAGAGTCCAT GAAGTTTACA GGAACAGATG GACCTAGTGG TTTTGT

FIG._9

MAELRPSGAPGPTAPPAPGPTAPPAPAFASLFPPGLHAIYGECCRRLYPDQPNPLQVTAIVKY
WLGPDPLDYVSMYRNVGSPSANIPEHWHYISFGLSDLYGDNRVHEFTGTDGPGSGFGFEL
TFRCLKRETGESAPPTWPAELMQGLARYVFQSENTFCSGDHVSWHSPLDNSESRIOHMLLT
EDPQMOPVQTPFGVVTFLQIVGVCTEELHSAQQWNGQGILELLRTVPIAGGPWLITDMRR
GETIFEIDPHLQERV DKG IETDGSNL SGVSAKCAWDDL SRPPEDEDSRSICIGTQPRRL
SGKDTEQIRETLRRGLEINSKPVLPPINPQRQNGLAHDRAPSRKDSLES DSSTAIIPHEL
IRTRQLESVHLKFNQESGALIPLCRLGRLLHGRHFTYKSITGDMAITFVSTGVEGAFATE
EHPYAAHGPWLQLDYKDDDDK

FIG._10

MSPILGYWKIKGLVQPTRLLLEYLEEKYEELHYERDEGDKWRNKKFELGLEFPNLPYYID
GDVKLTQSMAIIRYIADKHMLGGCPKERA EISMLEGAVLDIRYGVSR IAYSKDFETLKV
DFLSKLPEMLKMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFK
KRIEAIPOIDKYLKSSKYIAWPLQGWQATFGGGDHPPKSDLVPRGSAELRPSGAPGPTAP
PAPGPTAPPAPAFASLFPPGLHAIYGECCRRLYPDQPNPLQVTAIVKYWLGPDPLDYVSMYR
NVGSPSANIPEHWHYISFGLSDLYGDNRVHEFTGTDGPGSGFGFELTFRCLKRETGESAPPT
WPAELMQGLARYVFQSENTFCSGDHVSWHSPLDNSESRIOHMLLTEDPQMOPVQTPFGVV
TFLQIVGVCTEELHSAQQWNGQGILELLRTVPIAGGPWLITDMRRGETIFEIDPHLQERV
DKGIETDGSNL SGVSAKCAWDDL SRPPEDEDSRSICIGTQPRRLSGKDTEQIRETLRRG
LEINSKPVLPPINPQRQNGLAHDRAPSRKDSLES DSSTAIIPHELIRTRQLESVHLKFNQ
ESGALIPLCRLGRLLHGRHFTYKSITGDMAITFVSTGVEGAFATEEHPYAAHGPWLQ

FIG._11

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